What is claimed is:

1. A conductive electroless plated powder comprising:

core particles; and

a nickel film formed by an electroless plating process on a surface of each core particle,

wherein grainless boundaries are recognized in cross section in a direction of a thickness of the nickel film when observed with a scanning electron microscope at a magnification of up to 100,000.

2. The conductive electroless plated powder according to claim 1, further comprising an electroless gold plating film disposed on the nickel film.

3. A method for making a conductive electroless plated powder comprising the steps of:

(I) allowing core particles which have a noble metal ion-capturing ability to capture noble metal ions, and reducing the noble metal ions so that the surfaces of the core particles support a noble metal;

(II) dispersing the core particles in an aqueous medium containing a complexing agent comprising an organic carboxylic

acid or a salt thereof to prepare an aqueous suspension; and

(III) adding a nickel ion-containing solution containing the same complexing agent and a reducing agent-containing solution individually and simultaneously to the aqueous suspension so as to perform electroless plating.

4. The method according to claim 3, further comprising at least one of the steps of: adjusting the amounts of said nickel ion-containing solution added and said reducing agent-containing solution added, adjusting the initial concentration of said complexing agent in said aqueous suspension, and adjusting the concentration of said complexing agent in said nickel ion-containing solution, so as to maintain the concentration of said complexing agent in said aqueous suspension in the range of 0.005 to 6 moles/l in said step (III).

5. The method according to claim 4, further comprising the step of using at least one of tartaric acid and a salt thereof as the complexing agent.

6. The method according to claim 5, wherein, in said step (II), the aqueous medium is an initial thin film-forming solution containing the complexing agent, nickel ions, and a reducing

agent, and said step (II) further comprises reducing the nickel ions to form initial thin nickel films on the surfaces of the core particles, and said step (III) further comprises adding the nickel ion-containing solution and the reducing agent-containing solution to the aqueous suspension containing the core particles provided with the initial thin films and the complexing agent.

7. The method according to claim 6, further comprising the step of using, before said step (III), a ratio of the sum of the surface areas of said core particles contained in said aqueous suspension to the volume of said aqueous suspension between 0.1 to 15 m^2/l.

8. The method according to claim 4, wherein, in said step (II), the aqueous medium is an initial thin film-forming solution containing the complexing agent, nickel ions, and a reducing agent, and said step (II) further comprises reducing nickel ions to form initial thin nickel films on the surfaces of the core particles, and said step (III) further comprises adding the nickel ion-containing solution and the reducing agent-containing solution to the aqueous suspension containing the core particles provided with the initial thin films the said complexing agent.

9. The method according to claim 8, further comprising the step of using, before said step (III), a ratio of the sum of the surface areas of the core particles contained in the aqueous suspension to the volume of the aqueous suspension between 0.1 to 15 m^2/l.

10. The method according to claim 3, further comprising the step of using at least one of tartaric acid and a salt thereof as the complexing agent.

11. The method according to claim 10, wherein, in said step (II), the aqueous medium is an initial thin film-forming solution containing the complexing agent, nickel ions, and a reducing agent, said step (II) further comprises reducing nickel ions to form initial thin nickel films on the surfaces of core particles, and said step (III) further comprises adding the nickel ion-containing solution and the reducing agent-containing solution to the aqueous suspension containing the core particles provided with the initial thin films and the complexing agent.

12. The method according to claim 11, further comprising the step of using, before said step (III), a ratio of the sum of the surface areas of the core particles contained in the aqueous

suspension to the volume of the aqueous suspension between 0.1 to 15 m^2/l.

13. The method according to claim 3, wherein, in said step (II), the aqueous medium is an initial thin film-forming solution containing said complexing agent, nickel ions, and a reducing agent, said step (II) further comprises reducing the nickel ions to form initial thin nickel films on the surfaces of the core particles, and said step (III), further comprises adding the nickel ion-containing solution and the reducing agent-containing solution to the aqueous suspension containing the core particles provided with the initial thin films and the complexing agent.

14. The method according to claim 13, further comprising the step of using, before the step (III), a ratio of the sum of the surface areas of the core particles contained in said aqueous suspension to the volume of said aqueous suspension between 0.1 to 15 m^2/l.

15. The method according to claim 3, further comprising the step of imparting the noble metal ion-capturing ability to the core particles by a surface treatment.

16. A conductive electroless plated powder comprising:

core particles;

a nickel film formed by an electroless plating process on a surface of each core particle; and

an electroless gold plating film deposited on the nickel film, wherein a thickness of the electroless gold plating film is between 0.001 to 0.5 μm;

wherein grainless boundaries in the nickel film are recognized in the cross section in a direction of a thickness of the nickel film when observed with a scanning electron microscope at a magnification of up to 100,000.

17. The conductive electroless plated powder according to claim 16, wherein the core particles include inorganic substances and organic substances.

18. The conductive electroless plated powder according to claim 17, wherein the inorganic substances include at least one of silica and carbon.

19. The conductive electroless plated powder according to claim 17, wherein the organic substances include benzoguanamine resins.